

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-11. (Cancelled)

12. (Previously Presented) A method of screening for agents that sequester AR-NOX, comprising:

- (a) incubating AR-NOX with a test agent for a time sufficient to allow the test agent to bind AR-NOX; and
- (b) detecting the presence of a complex comprising AR-NOX and the test agent.

13. (Original) The method of claim 12 wherein the test agent is detectably labeled by a dye, an enzyme, an isotope, a fluorescent group, or a luminescent group.
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14. (Previously Presented) The method of claim 12 wherein said method further comprises incubating AR-NOX with a component that is known to interact with AR-NOX.

15. (Previously Presented) The method of claim 14 wherein said component that is known to interact with AR-NOX is ubiquinone.

16. (Original) The method of claim 12 wherein the method of screening takes place within a cell.

17. (Previously Presented) A method of screening for agents that sequester AR-NOX comprising:

- (a) incubating AR-NOX with a test agent, cytochrome c, and a substrate that generates reactive oxygen species, for a time sufficient for cytochrome c reduction; and
- (b) detecting the presence of reduced cytochrome c, in the presence or absence of the test agent,

whereas the absence of reduced cytochrome c in the mixture comprising the test agent indicates that the test agent sequesters AR-NOX.

18. (Previously Presented) The method of claim 17 wherein the substrate that generates reactive oxygen species is superoxide dismutase.

19. (Previously Presented) The method of claim 17 wherein the detection of cytochrome c is measured by comparing spectrophotometric absorbance at about 540 nm to 550 nm in the presence of said test agent to the spectrophotometric absorbance at about 540 nm to 550 nm in the absence of said test agent.

20. (Previously Presented) A method of screening for agents that sequester AR-NOX comprising:

- (a) incubating AR-NOX with a test agent and a substrate, wherein said substrate is reduced by AR-NOX, for a time sufficient for AR-NOX to reduce said substrate; and
- (b) detecting the presence of reduced substrate in the presence or absence of the test agent,

whereas the absence of reduced substrate in the mixture comprising the test agent indicates that the test agent sequesters AR-NOX.

21. (Previously Presented) The method of claim 20 wherein the substrate reduced by AR-NOX is an ascorbate radical.

22. (Previously Presented) The method of claim 21 wherein the detection of ascorbate radical is measured by comparing spectrophotometric absorbance at about 265 nm in the presence of said test agent to the spectrophotometric absorbance at about 265 nm in the absence of said test agent.

23. (Previously Presented) The method of claim 20 wherein the substrate reduced by AR-NOX is NAD⁺.

24. (Currently Amended) A method of screening for agents that sequester AR-NOX comprising

- (a) incubating AR-NOX with a test agent and a substrate, wherein said substrate undergoes disulfide-thiol interchange ~~activity~~ in the presence of AR-NOX, for a time sufficient for AR-NOX to reduce said substrate; and

(b) detecting the presence of disulfide-thiol interchange in the substrate in the presence or absence of the test agent,
whereas the absence of disulfide-thiol interchange in the substrate in the mixture comprising the test agent indicates that the test agent sequesters AR-NOX.

25-54. (Cancelled)